



**PATENT APPLICATION**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Eric COUPART et al.

Group Art Unit: 2834

Application No.: 09/843,808

Examiner: P. Cuevas

Filed: April 30, 2001

Docket No.: 109420

For: A ROTARY ELECTRIC MACHINE HAVING A FLUX-CONCENTRATING ROTOR  
AND A STATOR WITH WINDINGS ON TEETH

**REQUEST FOR RECONSIDERATION**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In reply to the December 17, 2003 Office Action and the March 22, 2004 personal interview, with prosecution reopened by the Request for Continued Examination on March 17, 2004, reconsideration of the above-identified application is respectfully requested.

Applicants thank Examiner Cuevas and Examiner Tamai for the courtesies extended to Applicants' representative during the March 24, 2004 personal interview. The substance of the interview is incorporated in the remarks below.

Applicants also appreciate the indication of allowability for claims 9-12. However, for the reasons discussed below, Applicants assert that all of claims 1-44 are allowable.

Claims 1 and 36-38 were rejected under 35 U.S.C. §103(a) over Nashiki, U.S. Patent No. 6,144,132, in view of Abraham et al. (hereinafter "Abraham"), U.S. Patent No. 3,806,744 and claims 23, 24 and 39-44 were rejected under 35 U.S.C. §103(a) over Nashiki in view of

Abraham, Abukawa et al. (hereinafter "Abukawa"), U.S. Patent No. 6,335,582 and Yates, U.S. Patent No. 4,618,792. The rejections are respectfully traversed.

As discussed during the personal interview, none of the applied references disclose or suggest a rotary electric machine with a flux-concentrating rotor with permanent magnets disposed between non-magnetically interconnected pole pieces as recited in claim 1, and as similarly recited in claims 40 and 42.

As admitted in the Office Action, Nashiki fails to disclose non-magnetically interconnected pole pieces. As discussed during the personal interview, Abraham fails to overcome the deficiencies of Nashiki because Abraham discloses a stepper motor with an external non-magnetic rotor 16 (col. 2, lines 17-38 and 51). As such, the portion of Abraham's rotor 16 that extends angularly between the magnets is thus not magnetic and cannot be pole pieces for concentrating the flux of the permanent magnets. As such, Abraham fails to disclose or suggest Applicants' pole pieces or non-magnetically interconnected pole pieces.

Abukawa and Yates fail to overcome the deficiencies of Nashiki and Abraham because Abukawa and Yates fail to disclose a flux-concentrating rotor.

Accordingly, none of the applied references disclose or suggest all of the features of claims 1, 40 or 42 or the additional features recited in the dependent claims.

None of the applied references disclose or suggest a rotary electric machine with a stator with each tooth comprising two non-parallel opposite planar faces as recited in claim 39 or the additional features recited in the dependent claims.

As asserted during the personal interview, none of Nashiki, Abraham or Abukawa disclose or suggest two non-parallel opposite planar faces. Yates fails to disclose opposite planar faces. Accordingly, none of the applied references disclose or suggest all of the features recited in claim 39 or the additional features recited in the dependent claims.

None of the applied references disclose or suggest a rotary electric machine with a stator with a concentrating winding, the concentrated winding including at least one individual coil with a plurality of superposed turns of a substantially flat bundle of insulated wires wound around a winding axis as recited in claim 41.

As discussed during the personal interview, Yates only discloses a schematic drawing of the concentrated winding. Abukawa's Fig. 6 only discloses a single wire. Furthermore, neither Nashiki nor Abraham discloses a concentrated winding. Accordingly, none of the applied references disclose or suggest all of the features recited in claim 41.

Claims 2-38, 15-22, 25 and 35 were rejected under 35 U.S.C. §103(a) over Nashiki in view of Abraham and Abukawa, claims 4-8, 13, 14, 25 and 32-34 were rejected under 35 U.S.C. §103(a) over Nashiki in view of Abraham and Yates, claim 31 was rejected under 35 U.S.C. §103(a) over Nashiki in view of Abraham, Abukawa, Yates and Curtis, Jr. et al. (hereinafter "Curtis"), U.S. Patent No. 4,896,839, and claims 26-29 were rejected under 35 U.S.C. §103(a) over Nashiki in view of Abraham, Abukawa, Yates and Guers, U.S. Patent No. 4,688,951. The rejections are respectfully traversed.

Neither Curtis nor Guers overcome the deficiencies of Nashiki, Abraham, Abukawa and Yates as applied to claim 1 or disclose the additional features recited in the dependent claims. It is respectfully requested that the rejections be withdrawn.

In view of the foregoing amendments and remarks, Applicants respectfully submit that this application is in condition for allowance. Favorable consideration and prompt allowance of claims 1-44 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,



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Date: March 25, 2004

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